

GEZE OL LINE MANUAL WINDOW CONTROLS
FLEXIBLE MODULAR SYSTEMS



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# Flexible Modular Ventilation Made Easy

GEZE introduces OL Line – a natural ventilation system for operating high level windows and roof lights.

A manual control system, OL Line provides easy and reliable opening even for hard to reach windows. The modular system – it consists of a manual opener fitted to the opening vent linked via lengths of conduit and cable to a wall mounted operator – has been designed to be flexible. The conduit can be bent around obstructions enabling the operator handle to be positioned within easy reach.

Multiple vents can be operated easily from a single operator in a choice of installation arrangements offering the specifier flexibility in design.

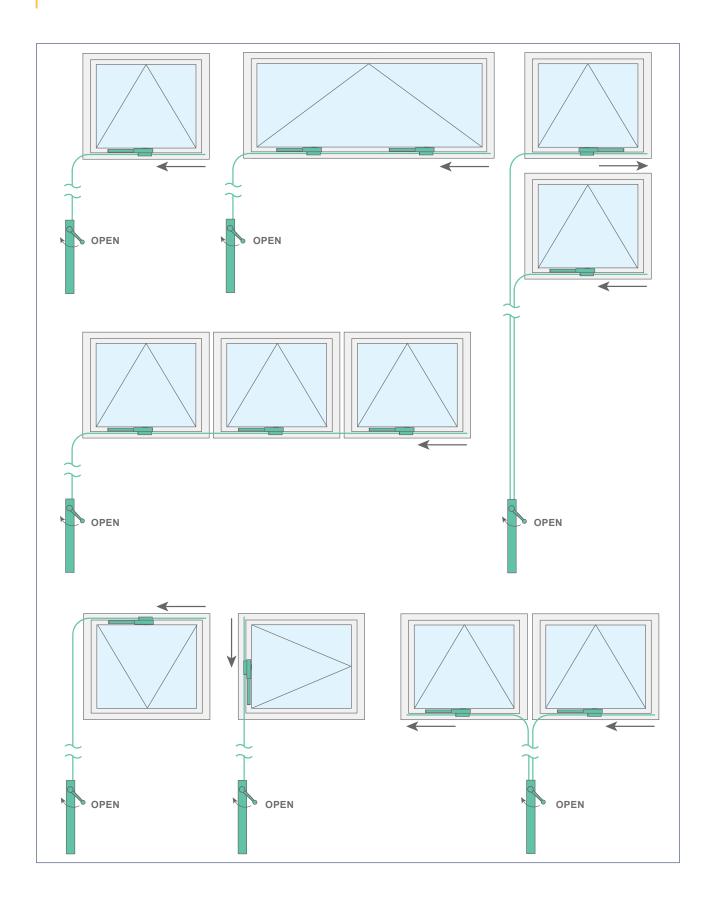
The system can be fitted to most styles of windows, even on roof lights when used with a screwjack opener, and with several types of operator available from the most popular Midi operator to the Maxi operator for heavier window loads, the OL Line system really does offer flexible solutions.

Thanks to its modular design GEZE OL Line is also perfect for retrofitting. Easy to install and easy to use the OL Line makes natural ventilation by manual operation a breath of fresh air!



Installation situation (Photo: GEZE GmbH)

# Installation examples



# **Manual Openers**

## 250 and 380 Chain Openers

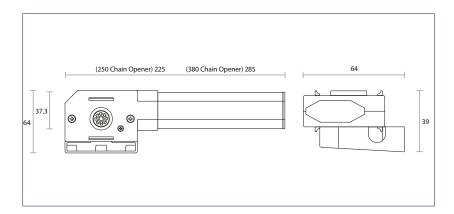
## 250 Chain Openers

- The most popular type of window opener with 250mm opening stroke
- Can be used on most window types using the appropriate fixing bracket
- Individual or multiple 250 Chain Openers can be controlled from a single 250 Midi Operator, Maxi Operator Maxi 1, Maxi Operator Maxi 2 or Mini Operator

## 380 Chain Openers

- Similar to the 250 opener but with 380mm opening stroke
- Can be used on most window types using the appropriate fixing bracket
- Individual or multiple 380 Chain Openers can be controlled from a single 380 Midi Operator, Maxi Operator Maxi 1, Maxi Operator Maxi 2 or Mini Operator





Description	Length	Version	ID No.
	250mm	White	162356
250 Chain Opener	250mm	Black	162357
	250mm	Grey	162358
380 Chain Opener	250mm	White	162359
	250mm	Black	162360
	250mm	Grey	162361

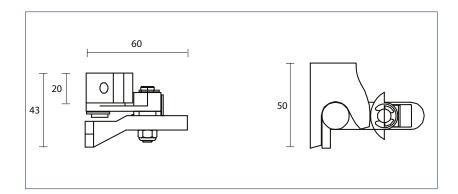
# **Manual Openers**

## Locking Opener, Fork and Swivel Opener and Sill Mounted Screwjack Opener

## Locking opener

- Manal locking opener for use with 250 Midi Operator or Mini Operator on bottom hung open inward windows
- Maximum opening stroke 250mm
- Available in white, black and grey

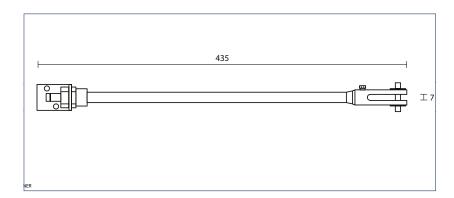




# Fork and Swivel Opener

- Manual fork and swivel opener for use with 250 Midi Operator or Mini Operator on louvre blades
- Maximum opening stroke 250mm
- Available in stainless steel only

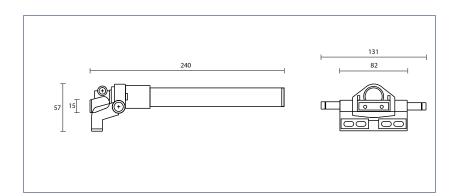




#### Sill Screwjack opener

- Sill mounted screwjack to use with Maxi Operator Maxi 1 or Maxi Operator Maxi 2 operators to control pitched roof vents
- Maximum opening stroke of 380mm
- Available in white only





Description	Length	Version	ID No.
Locking Opener	250mm	White	162402
	250mm	Black	162403
	250mm	Grey	162404
Fork and Swivel Opener	250mm	Stainless steel	162405
Sill Mounted Screwjack Opener	250mm	White	162406

# **Manual Operators**

## 250 and 380 Midi Operators

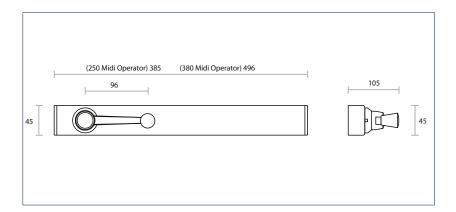
#### 250 Midi Operator

- Midi handle operator for use with the 250 Chain Opener, Locking Opener and the Fork and Swivel Opener manual openers to allow for a maximum opening of 250mm
- Complete with Operator Handle for Mini/Midi, Square Conduit (250mm) and Brass Stop
- Brass Stop is used to adjust maximum opening anywhere from 0-250mm

#### 380 Midi Operator

- Midi handle operator for use with the 380 Chain Opener to allow for a maximum opening of 380mm
- Complete with Operator Handle for Mini/Midi, Square Conduit (380mm) and Brass Stop
- Brass Stop is used to adjust maximum opening anywhere from 0-380mm





Description	Length	Version	ID No.
	250mm	White	162407
250 Midi Operator	250mm	Black	162408
	250mm	Grey	162409
380 Midi Operator	250mm	White	162410
	250mm	Black	162411
	250mm	Grey	162412

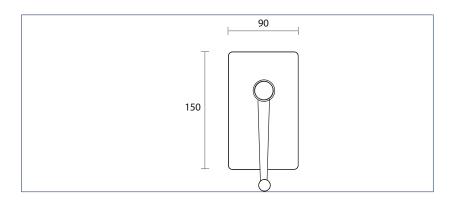
# **Manual Operators**

#### **Maxi and Mini Operators**

## Maxi Operator Maxi 1

- Heavy duty metal cased operator designed for multiple window operation beyond the capability of the standard Midi or Mini Operators
- Complete with handle and fixings

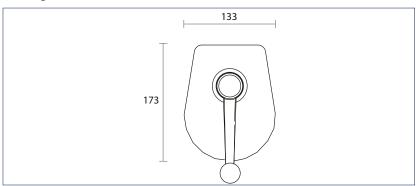




## Maxi Operator Maxi 2

- Heavy duty metal cased operator designed for multiple window operation beyond the capability of the standard Midi or Mini Operators
- Complete with Operator Handle for Mini / Midi, and fixings

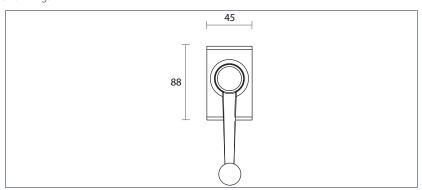




## **Mini Operator**

- Compact metal cased operator for use on single or light multiple window control
- Complete with Operator Handle for Mini / Midi and fixings





Description	Version	ID No.
Maxi Operator Maxi 1	White	162413
Maxi Operator Maxi 2	White	162414
	Black	162415
	Grey	162416
Mini Operator	White	162417

# Accessories



Large Grip Operator Handle for Mini / Midi Operator



Operator Handle for Mini / Midi Operator



Rotary Junction Box



Conduit



Square Conduit



Conduit End Plug



Inner Cable



Saddle Bracket



Spring Stop



Brass Stop



Conduit Connector



Conduit Tool



Bending Tool

Description	Length	Version	ID No.
Large Grip Operator Handle for Mini / Midi Operator		White	162418
		White	162419
Operator Handle for Mini / Midi Operator		Black	162421
		Grey	162423
		White	162424
Rotary Junction Box Used to connect satellite drive system to main control		Black	162425
osed to connect sucemic dive system to main control		Grey	162426
Conduit		White	162427
Plastic covered metal tube with nylon inner liner, used to connect operator to chain		Black	162428
opener, supplied in 3 metre lengths		Grey	162429
Square Conduit	250mm		162430
Mill finished aluminium spent travel for use with Brass Stop when both drives of 250 and 380 Midi Operator are used	250mm		162431
		White	162432
Conduit End Plug Plastic moulded plug to seal end of conduit run		Black	162433
Flustic moduced plug to seal cha of conduct an		Grey	162434
Inner Cable Helical steel cable which fits inside conduit to drive the gearbox of the operator or opener, supplied per metre			162435
		White	162436
Saddle Bracket  Conduit saddle bracket to fix conduit to wall or window frame, complete with packer		Black	162437
Conduit saddle bracket to fix conduit to wair of window frame, complete with packet		Grey	162438
Spring Stop Helical Spring Stop that can be threaded onto the end of the cable to adjust the opening stroke			162439
Brass Stop Brass stop used in conjunction with Square Conduit when both ports of 250 / 380 Midi Operators are used			162433
		White	162450
Conduit Connector  Metal collar and sleeve used to connect two lengths of conduit together		Black	162451
metar containant sice ve asea to connect two lengths of containt together		Grey	162452
Conduit Tool Tool used to form groove in the end of the conduit, enabling it to be located securely in the collar of the operator or opener			162456
Bending Tool Tool to be used to bend conduit to the correct radius			162457

# **Fixing Accessories**

Description	Version	ID No.
	White	162441
Narrow Fixing Plate For use with aluminium frames	Black	162442
Tor use with didnimidiffications	Grey	162443
	White	162444
Wide Fixing Plate For use with UPVC frames	Black	162445
Total and Walter Verlaines	Grey	162446
	White	162447
Angled Fixing Plate For sill mounting	Black	162448
To siii mounting	Grey	162449
	White	162453
Z Bracket For bottom hung / inward opening	Black	162454
To bottom hang, inward opening	Grey	162455
Operator Fixing Pack		162739
Chain Fixing Pack		162740

#### **Technical Data**

Minimum window height for full 250mm travel of 250 Chain Opener – 500mm.

Minimum window height for full 380mm travel of 380 Chain Opener – 900mm

Chain openers fitted on windows less than recommended height must have opening restricted to 30% of the vent height using the Spring Stop or Brass Stop nuts to shorten the cable run. Use only Maxi Operator Maxi 1, Maxi Operator Maxi 2, 380 Midi Operator or Mini Operator with the 380 Chain Opener.

For safety reasons we recommend fitting side support stays to all bottom-hung, open-in windows. For bottom-hung applications GEZE Safety Scissors No 35 (ID No 014499) or No 60 (ID No 133814) must be used.

#### Maximum control run

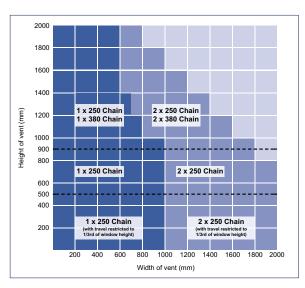
Operator	Maximum Control Run
Maxi Operator Maxi 1	30m
Maxi Operator Maxi 2	30m
250 / 380 Midi Operator	18m
Mini Operator	18m

# Spent travel conduit

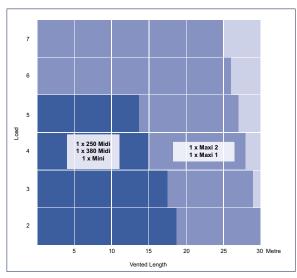
To allow for the forward/backward movement of the inner cable a length of 'spent travel' conduit must be fitted at either end of the control path i.e. past the last chain/screwjack and below the operator (except the 250 / 380 Midi Operators which have an integral 'spent travel' tube).

Type of Operator	Spent Travel Conduit
Sill Mounted Screwjack Opener	2.5m (for full 380mm travel)
250 Chain Opener	0.3m
380 Chain Opener	0.45m

#### Number of openers per vent



## Type of operator



### LOAD = No. of chain openers + No. of bends in conduit

The above figures are based on a single bend in the conduit path. For each additional bend deduct 1 metre from the Vented Length total.

The figures used in these charts are based on windows with 4mm double glazed units fitted to butt hinges or free pivots, not friction stays. Please refer to our sales or technical department for advice if friction stays are fitted.

You will find more product information in the relevant brochures, see ID numbers.

Door	technology
01	Overhead door closers ID 091593, ID 091594
02	Hold-open systems ID 091593, ID 091594
03	Integrated door closers ID 091609
04	Floor springs ID 091607
05	Sliding door gear systems and linear guides ID 123605, ID 008770, ID 000586
Autor	natic door systems
06	Swing doors ID 144785
07	Sliding, telescopic and folding doors ID 143639
08	Circular and semi-circular sliding doors ID 135772
09	Revolving doors ID 132050
10	Actuation devices and sensors ID 142655
Smok	e and heat extraction and window technology
11	Fanlight opening systems ID 127787
12	Electric opening and locking systems ID 154851
13	Electrical spindle and linear drives ID 154851
14	Electric chain drives ID 154851
15	Smoke and heat extraction systems ID 154851
Safety	y technology
16	Emergency exit systems ID 132408
17	Access control systems ID 132158
18	Panic locks ID 132848
19	Electric strikes ID 148666
20	Building management system ID 132408
Glass	systems
21	Manual sliding wall systems (MSW) ID 104377
22	Integrated all-glass systems (IGG) ID 104366
23	GEZE Patch fittings mono glass systems



ID 122521



#### **Door technology**

The functionality, superior performance and reliability of GEZE door closers are impressive. A common design across the range, the ability to use them on all common door leaf widths and weights, and the fact that they can be individually adjusted makes their selection simple. They are continually being improved and enhanced with up-to-date features. For example, the requirements of fire protection and accessibility are fulfilled with a door closer system.

#### **Automatic door systems**

GEZE automatic door systems open up a huge variety of options in door design. The latest, innovative high-performance drive technology, safety, ease of accessibility and first class universal drive design set them apart. GEZE offers complete solutions for individual requirements. A dedicated division is responsible for the development and construction of individual special designs.

### Smoke and heat extraction and window technology

GEZE smoke and heat extraction systems and ventilation technology provide complete systems solutions combining the many requirements of different types of windows. We supply a full range from energy efficient drive systems to natural ventilation and complete solutions for supplying and extracting air, also as certified SHEVs.

## Safety technology

GEZE safety technology sets the standards where preventative fire protection, access control and anti-theft security in emergency exits are concerned. For each of these objectives GEZE offers tailored solutions, which combine the individual safety requirements in one intelligent system and close doors and windows in case of danger in a coordinated manner.

#### **Building systems**

In GEZE's Building Management System GEZE door, window and safety products can be integrated in to the security and control systems of the building. A central control and visualisation system monitors various automation components in the building and offers security through many different networking capabilities.

### **Glass systems**

GEZE glass systems stand for open and transparent interior design. They can either blend discreetly into the architecture of the building or stand out as an accentuated feature. GEZE offers a wide variety of technologies for functional, reliable and aesthetic sliding wall or sliding door systems providing security with lots of design scope.

# **GEZE UK Ltd**

Blenheim Way Fradley Park Lichfield Staffordshire WS13 8SY

Tel: +44 (0) 1543 443000 Fax: +44 (0) 1543 443001 info.uk@geze.com